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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/515,037	03/06/2000	Thomas F. Bergstraesser	777.277US1	7759

7590

03/14/2003

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EXAMINER

FLEURANTIN, JEAN B

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/515,037

Applicant(s)

BERGSTRAESSER ET AL.

Examiner

Jean B Fleurantin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 17-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 7.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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### DETAILED ACTION

1. This action is in response to the application filed on March 6, 2000. Claims 1-36 are presented for examination.

#### *Election/Restriction*

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, are drawn to object oriented database structure, classified in class 707, subclass 103R.
- II. Claims 16-36, are drawn to object oriented, classified in class 717, subclass 108.

The inventions are distinct, each from the other because of the following reasons:

Inventions in Groups I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention in Group I has separate utility such as object oriented database structure. See MPEP § 806.05(d). Invention in Group II has separate utility and requires a method of determining a context for the versioned object.

Because these inventions are distinct for the reasons given above and requires a separate status in the art as shown by their different classification, and the search required for group I is not required for group II, restriction for examination purpose as indicated is proper.

During a telephone conversation with Mr. Jeffrey L. Ranck on February 26, 2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 17-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant are reminder that upon the cancellation of claims to a non-elected invention, the inventership must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors in no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

***Drawings***

3. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

***Claim Rejections - 35 U.S.C. § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 8-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Chou et al. 'A Unifying Framework for Version Control in a CAD Environment - 8/1998', submitted by the Applicant.

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As per claims 1 and 8, Chou teaches a computerized method for updating a version of an object having a property, as claimed the method comprises receiving an updated value for the property (thus, it can be updated by the designer who created it; which is readable as receiving an updated value for the property)(see page 338, col. 1, lines 7-8). Further, in page 337, column 2, lines 61 through 63, Chou teaches after the initial creation of a design object new versions of the object can be derived from it and new versions can in turn be derived from them;

setting an end version field in a first data structure to a value representing a predecessor version of the object (thus, the version of schema for V must precede V if the version of the schema does not already reside in the database to which V is being sent, which is readable as setting an end version field in a first data structure to a value representing a predecessor version of the object)(see page 340, col. 1, lines 30-32);

creating a second data structure (the schema must exist in both the public database and private database in which the transient version has been created, which is readable as creating a second data structure)(see page 340, col. 1, lines 18-21);

setting a start version field in the second data structure to a value representing a new version of the object (thus, after a designer creates a transient version by checking out a version he may modify the schema for the transient version, then the original version and the transient version will use different schemas; which is readable as setting a start version field in the second data structure to a value representing a new version of the object)(see page 340, col. 1, lines 18-21). Further, in page 341, column 2, line 6, Chou teaches a default version number; and

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setting an end version field in the second data structure to a value representing a most recent version of the object (thus, the version of schema used for version  $V_i$  of a design object may be different from that used for version  $V_j$  derived from  $V_i$ , after a designer creates a transient version by checking out a version he may modify the schema for the transient version, then the original version and the transient version will use different schemas; which is readable as setting an end version field in the second data structure to a value representing a most recent version of the object)(see page 340, col. 1, lines 16-21).

As per claims 2 and 9, Chou teaches the computerized method as claimed, further comprises setting a property value field to the updated value (thus, when a new reference version  $V$  is created the name of the version that references version  $V$  is appended to the inverted references list of version, which is readable as setting a property value field to the updated value)(see page 342, col. 1, lines 10-13).

As per claims 3 and 10, Chou teaches the computerized method as claimed, wherein the value representing the most recent value is infinity (see page 340, col. 1, lines 55-61).

As per claims 4 and 11, Chou teaches the computerized method as claimed, wherein the data structure is a row in a database (see page 341, col. 2, lines 39-44).

As per claims 5 and 12, Chou teaches the computerized method as claimed, wherein the object is a COM (Component Object Model) object (thus, a component object may be referenced by any number of other objects, which is equivalent to wherein the object is a COM (Component Object Model) object)(see page 337, col. 2, lines 40-42).

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As per claims 13 and 15, in addition to the discussion in claim 1, Chou teaches method for propagating a relationship of a predecessor object to a successor object, said relationship having an origin object and a destination object, the method comprises reading a propagation flag on the relationship (thus, the system simply updates data structures that it maintains so that affected users will become aware of changes in a version only when they explicitly access the version, the flag based approach is necessarily a deferred notification strategy; which is readable as reading a propagation flag on the relationship)(see page 340, col. 2, lines 9-12); and

if the propagation flag is set then performing the tasks of determining if a new version of the destination object has been added (thus, the system simply updates data structures that it maintains so that affected users will become aware of changes in a version only when they explicitly access the version, the flag based approach is necessarily a deferred notification strategy, an object has a number of change notification options at its disposal and types of changes to post notification 'creation of a new version; which is readable as if the propagation flag is set then performing the tasks of determining if a new version of the destination object has been added)(see page 340, col. 2, lines 9-25).

As per claims 14 and 16, Chou teaches the computerized method as claimed, wherein the predecessor object and the successor object are COM objects (thus, a component object may be referenced by any number of other objects, which is equivalent to wherein the predecessor object and the successor object are COM objects)(see page 337, col. 2, lines 40-42).

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***Claim Rejections - 35 U.S.C. § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al. 'A Unifying Framework for Version Control in a CAD Environment - 8/1998', submitted by the Applicant.

As per claim 6, in addition to the discussion in claim 1, Chou teaches a computer readable medium having a data structure stored thereon (see page 338, col. 1, lines 11-14) as claimed, the medium comprises a first field comprising a key for the data structure (thus, using the object name as a key the hash table returns a pointer to the version table associated with the object, which is equivalent to a key for the data structure)(see page 342, col. 2, lines 4-6);

a third field comprising an end version identifier (thus, a next version number, which is readable as an end version identifier)(see page 341, col. 2, line 7). Further, page 339, in column 1, lines 12 through 21, Chou teaches versions on a derivation hierarchy in a particular database are assigned monotonically increasing integers in the order of their creation;

a fourth field comprising a property value (thus, we need to maintain for each version V when a new reference version V is created the name of the version that references version V is appended to the inverted references list of version, which is readable as a fourth field comprising



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a property value)(see page 342, col. 1, lines 9-13). But, Chou does not explicitly indicate wherein the second and third field define a range of versions of an object identified by the first field having the property value in the fourth field. However, implicitly Chou indicates a default version number, a next version number, a version count and a set version descriptors one for each version existing version on the version derivation hierarchy of the object; which is readable as wherein the second and third field define a range of versions of an object identified by the first field having the property value in the fourth field)(see page 341, col. 2, lines 6-10). Further, in page 340, column 1, lines 16 through 21, Chou teaches the version of schema used for version  $V_i$  of a design object may be different from that used for version  $V_j$  derived from  $V_i$ , after a designer creates a transient version by checking out a version he may modify the schema for the transient version, then the original version and the transient version will use different schemas. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teaching of Chou with wherein the second and third field define a range of versions of an object identified by the first field having the property value in the fourth field. This modification would allow the teachings of Chou to improve the accuracy and the reliability of the versions and workspaces in an object repository, and provide user to specify a particular version on the version derivation hierarchy (see page 339, col. 1, lines 62-63)

As per claim 7, Chou teaches a computer-readable as claimed, wherein the first field comprises an object identifier and a branch identifier (see page 339, col. 1, lines 19-21).

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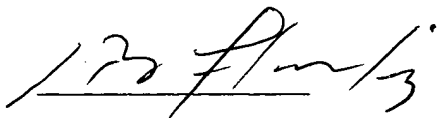
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shut et al. US Pat. No. 5,905,987 relates to object persistence databases.

***Conclusion***

7. Any inquiry concerning this communication from examiner should be directed to Jean Bolte Fleurantin at (703) 308-6718. The examiner can normally be reached on Monday through Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Mrs. KIM VU can be reached at (703) 305-8449. The FAX phone numbers for the Group 2100 Customer Service Center are: *After Final* (703) 746-7238, *Official* (703) 746-7239, and *Non-Official* (703) 746-7240. NOTE: Documents transmitted by facsimile will be entered as official documents on the file wrapper unless clearly marked "**DRAFT**".

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2100 Customer Service Center receptionist whose telephone numbers are (703) 306-5631, (703) 306-5632, (703) 306-5633.



Jean Bolte Fleurantin

March 4, 2003

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